

## CLAIMS

What is claimed is:

- 1 1. A modular AC section for a power supply unit that provides electrical power to a plurality  
2 of electrical equipment, comprising:  
3 a top in which a plurality of holes are formed and into which screws are inserted for  
4 attaching said modular AC section to said power supply unit;  
5 a back adjacent said top;  
6 a circuit breaker attached either to said top or back;  
7 a connector attached to said top, said connector adapted to mate with a corresponding  
8 connector from a power supply module inserted into the modular power supply  
9 unit; and  
10 wiring that connects said circuit breaker to said connector.
- 1 2. The modular AC section of claim 1 wherein said connector comprises a blind mating  
2 connector.
- 1 3. The modular AC section of claim 1 wherein said connector comprises a blind mating and  
2 hot pluggable connector.
- 1 4. The modular AC section of claim 1 further including a plurality of connectors attached to  
2 said top and adapted to mate with corresponding connectors from power supply modules inserted  
3 into the modular power supply unit.

1 5. The modular AC section of claim 4 wherein said connectors comprise blind mating  
2 connectors.

1 6. The modular AC section of claim 1 further including a plurality of circuit breakers.

1 7. The modular AC section of claim 1 further including two AC input connections.

1 8. The modular AC section of claim 1 wherein said back is perforated.

1 9. The modular AC section of claim 1 wherein said back is perforated to permit air flow to  
2 assist in removing heat from said power supply unit.

1 10. The modular AC section of claim 1 further including a locator post in said top which mates  
2 with a corresponding locator recess in said power supply unit.

1 11. The modular AC section of claim 1 further including redundant power feeds.

1 12. A rack of electrical computer equipment, comprising:  
2 a plurality of computers housed in said rack;  
3 a power supply unit housed in said rack and providing power to said computers, said power  
4 supply unit includes a power supply housing mated to said rack in which a power  
5 supply module can be inserted and an AC section that mates to said power supply  
6 housing and provides output electrical power, said AC section comprises:

7 a top in which a plurality of holes are formed and into which screws are  
8 inserted for attaching said AC section to said power supply housing;  
9 a back adjacent said top;  
10 a circuit breaker attached either to said top or back;  
11 a connector attached to said top, said connector adapted to mate with a  
12 corresponding connector from a power supply module inserted into  
13 the power supply housing; and  
14 wiring that connects said circuit breaker to said connector.

1 13. The rack of electrical computer equipment of claim 12 wherein said connector comprises a  
2 blind mating connector.

1 14. The rack of electrical computer equipment of claim 12 further including a plurality of  
2 connectors attached to said top and adapted to mate with corresponding connectors from power  
3 supply modules inserted into the power supply housing.

1 15. The rack of electrical computer equipment of claim 14 wherein said connectors comprise  
2 blind mating connectors.

1 16. The rack of electrical computer equipment of claim 12 further including a plurality of  
2 circuit breakers.

1 17. The rack of electrical computer equipment of claim 12 further including two AC input  
2 connections.

1 18. The rack of electrical computer equipment of claim 12 wherein said back is perforated.

1 19. The rack of electrical computer equipment of claim 12 wherein said back is perforated to  
2 permit air flow to assist in removing heat from said power supply unit.

1 20. The rack of electrical computer equipment of claim 12 further including power feeds.

1 21. A rack of electrical computer equipment, comprising:  
2 a plurality of computers housed in said rack;  
3 a power supply unit housed in said rack and providing power to said computers, said power  
4 supply unit includes a power supply housing mated to said rack in which a power  
5 supply module can be inserted and a modular means for interconnecting AC input  
6 power to a power supply module.

1 22. The rack of electrical computer equipment of claim 21 wherein said modular means is  
2 screwed to said power supply housing.

1 23. The rack of electrical computer equipment of claim 21 wherein said modular means  
2 comprises redundant power feeds.